

NOTES ON SOME CHINESE AND KOREAN SPECIES OF THALICTRUM

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With one plate

RECENT collections in China made under the auspices of the Arnold Arboretum have resulted in the assembling of about 200 specimens of *Thalictrum*, mostly from Yunnan; these are now deposited in the Gray Herbarium. The purpose of the present paper is to present descriptions of certain new species found among this material and to discuss other noteworthy species. When this work was first undertaken, in October, 1943, there was a nearly complete lack of material for comparison in the Harvard herbaria, and I was forced to depend upon the original descriptions in making identifications. Since then, however, at Dr. Merrill's request, Sir William Wright Smith, of the Royal Botanic Garden at Edinburgh, has very kindly sent us thirteen packets containing authentic fragments of as many of Lévillé's species. Each packet is fully annotated and contains fairly large fragments, so carefully selected that no trouble was experienced in identifying them, except, of course, when the plants had been badly preserved or collected too early.

I am deeply indebted to Sir William Wright Smith for his generosity in sending these fragments, and also to the authorities of the Arnold Arboretum and the Gray Herbarium for the specimens and facilities placed at my disposal. All cited specimens, unless otherwise stated, are deposited in the Gray Herbarium.

Subgenus *Thalictrum* (DC.) Reichenb.

§ *Homothalictrum* Boivin

Thalictrum Esquirolii H. Lév. & Vaniot in Bull. Acad. Int. Géogr. Bot. 17(210-211): ii. 1907.

Part of the type material, consisting of a complete plant and an inflorescence, is in the Gray Herbarium; this is very good material in full bloom. Most of the herbarium specimens which I have seen identified as this species have been correctly named.

Thalictrum minus L. var. *elatum* Lecoyer in Bull. Soc. Bot. Belg. 24: 202. 1885.

Thalictrum amplissimum H. Lév. & Vaniot in Bull. Acad. Int. Géogr. Bot. 11: 51. 1902.

Thalictrum minus var. *amplissimum* H. Lév. & Vaniot ex H. Lév. Fl. Kouy-Tchéou 339. 1915.

A fragment of a syntype of *T. amplissimum* is preserved in the Gray Herbarium. This is a side branch of the inflorescence of a plant 2 feet high, collected in flowering condition. Whether the actual type is at Edinburgh

or at the Académie Internationale de Géographie Botanique is not known, nor whether the original material is made up of two different collections or a single collection.

§ *Leptostigma* Boivin

Thalictrum acteaefolium Sieb. & Zucc. var. *clematidifolium* (Franch.) Finet & Gagnep. in Bull. Soc. Bot. France 50: 611. 1903.

The variety, known from Szechuan and Yunnan, is pubescent throughout and its anthers are about 1 mm. long, while the typical form is entirely glabrous and has anthers about 1.5 mm. long. Specimens of the typical form are at hand from Japan, Korea, Kiangsi, and Chekiang.

Thalictrum Atriplex Finet & Gagnep. in Bull. Soc. Bot. France 50: 613. *pl. 19, B.* 1903.

This species is closely related to *T. baicalense* Turcz., and it is probable that the latter should be placed in § *Leptostigma* rather than in § *Physocarpum*. Indeed, *T. baicalense* is a more or less heterodox species.

Thalictrum cirrhosum H. Lév. in Rep. Nov. Sp. 7: 97. 1909.

A fragment of an isotype, preserved in the Gray Herbarium, proves to be altogether different from any other specimen at hand. The whole plant is pubescent except upon the upper surface of the leaves. All the hairs are simple and short except those on the lower surfaces of the leaves, these bearing numerous short branches and having stellate tips. This is a unique type of pubescence in *Thalictrum*. The specific epithet *cirrhosum* is undoubtedly wrong, for the type has no cirrhi, nor have any other specimens of the genus. But the Edinburgh isotype is labeled "*cirrosum*" in Lévillé's hand. This could be the adjectival form of "cirrus" and could well be used to describe a plant having the habit of *T. trichopus* Franch. or *T. cincinnatum* Boivin. However, as the fragment looks much more like *T. deciternatum* Boivin than like any other species, one is at a loss to understand Lévillé's choice of a specific epithet.

Thalictrum deciternatum sp. nov. PL. I, FIGS. 4-7.

Planta omnino glabra, sed foliolis inferne interdum pubescentibus, caule, ramis, petiolis petiolulisque pruinosis, 50-125 cm. alta, radicibus fibrosis, haud stolonifera. Folia basilaria aetate florendi desunt. Folia caulinarum 10-30 cm. longa, sessilia in apice dilatationis petiolaris vel breviter petiolata, 6-10-ternata. Stipellae desunt. Foliola 3-10 mm. longa, bi-trilobata, crassa, margine revoluta, superne dense viridia et nervis paullo impressis, inferne glauca et nervis rugosis valde reticulatis. Foliolum terminale basi cuneatum apice rotundo-truncatum, mucronatum. Inflorescentia paniculata ramosa copiosa paullulum foliosa. Pedicelli sub receptaculo recurvati. Sepala elliptica lutea ca. 4 mm. longa. Filamenta lutea filiformia ca. 5 mm. longa. Antherae oblongo-lineares 3-3.5 mm. longae, mucrone 0.1-0.3 mm. longo. Ovaria subsessilia 4-5. Stigma sessile 1-1.5 mm. longum anguste bialatum a sepalis recedit. Carpella immatura compressa subsessilia, ventre basi cuneato, summo rotundo, nervo ventrali quam dorsali paullulum convexiore. Floret junio julio et agosto.

YUNNAN: Ad lat. or. mont. niveor. prope Lichiang, in dumetis, ad 1.25 m., alt. ca. 3200 m., junio 16, 1914, *C. Schneider 1805* (TYPE); Lichiang Snow Range, common along mountain stream, August 27, 1937, *T. T. Yü 15480*; eastern slopes of Likiang

Snow Range, gulch leading to main peak, among rocks, fls. yellow, May 24, 1922, *J. F. Rock* 3801; Likiang Snow Range, open pasture, plant 3 ft. high, fls. green-yellow, June 25, 1939, *R. C. Ching* 30272; Li-kiang Hsien, grassy slope under forest, fls. greenish white, alt. 3000 m., July 1935, *C. W. Wang* 70955; Wei-si Hsien, Yeh-chih, mountain slope, fls. yellow, alt. 3600 m., Aug. 1935, *C. W. Wang* 68341; Chi-ling Shan, Cheng-kiang, fls. light purple, alt. 1960 m., Aug. 25, 1939, *H. Wang* 41681; without detailed data, *T. T. Yü* 9891, 12008.

Thalictrum Delavayi Franch. in Bull. Soc. Bot. France 33: 367. 1886.

?*Thalictrum grandisepalum* H. Lév. in Bull. Acad. Int. Géogr. Bot. 11: 297. 1902.

?*Thalictrum Duclouxii* H. Lév. in Rep. Nov. Sp. 7: 98. 1909.

Thalictrum grandisepalum recalls *T. Delavayi* in its flowers, but it might possibly be a different species. The type fragment at hand shows a plant collected too early in bloom and very poorly preserved. A fragment of a syntype of *T. Duclouxii* is also at hand, but this was collected when the flowers were still in bud. Consequently, it is impossible to identify with certainty either of Léveillé's species listed above.

Thalictrum Finetii sp. nov. PL. I, FIGS. 1-3.

Planta 50-200 cm. alta, foliolis inferne et fructibus dense pubescentibus, caule et petiolis puberulis. Pubescentia caulinaris fructuum et petiolorum e pilis capitatis translucidis minutis, foliorum opacis minutis crassiusculis. Radices fibrosae, nec planta stolonifera. Caulis et rami flexuosi. Folium basilarium deest aetate florendi. Folia caulinarum regulariter 4-ternata et fere omnia sessilia in apice dilatationis petiolaris. Petioluli arcuantes. Stipellae desunt. Foliola membranacea ovata 5-15 mm. longa, trilobata lobis crenatis. Inflorescentiae variabiles, aliae reductae, aliae amplae. Pedicelli sub receptaculo recurvati et fere omnes ex axillis foliorum 1-3-ternatorum. Sepala 4-5, elliptica, 3.5-4.5 mm. longa. Filamenta filiformia pallide lutea ca. 6 mm. longa. Antherae oblongo-lanceolatae ca. 2.5 mm. longae, acumine ca. 1 mm. longo. Ovaria 7-10. Stigma 0.9-1.2 mm. longum haud alatum sed ventrale. Carpella matura laminaria, divaricata, stipite ca. 0.4 mm. longo, ventre semi-obovato ca. 4 mm. longo et 1.5 mm. lato, nervo dorsali recto, ventrali convexo et alis angustis undulatis munito. Floret julio et augusto.

SZECHUAN: Mt. Omei, hillside, fls. white, alt. 2200 m., Aug. 1, 1938, *K. N. Yin* 117 (TYPE); Mt. Omei, shrubby flat, 3 ft. high, fls. white, alt. 3300 m., July-Aug. 1931, *F. T. Wang* 23458; Lieng-ho-kou, grassland, fls. yellow, alt. 12000 ft., Aug. 1938, *T. S. Wen* 563. YUNNAN: Mekong-Salween Divide, rocky places in mountains, casual, 15-20 inches high, fls. yellow, alt. 4000 m., Aug. 11, 1938, *T. T. Yü* 22298; Chengkang, Snow Range, common on grassy slope, 2-3 ft. high, fls. white, alt. 3460 m., July 24, 1938, *T. T. Yü* 16930; A-tun-tze, ravine, July-Aug. 1935, *C. W. Wang* 64790; Chetse-lo, Pi-lo Shan, fls. yellow, alt. 4000 m., Aug. 18, 1934, *H. T. Tsai* 58014; Litiping, between Likiang and Weihsi, in mixed forests, 3-5 ft. high, Oct. 9, 1939, *R. C. Ching* 22072; Wei-si Hsien, Yeh-chih, common on mountain slope, alt. 3200 m., July 1935, *C. W. Wang* 68033; north flank of Haba Snow Range, open pasture, 3 ft. high, fls. white, Aug. 20, 1939, *K. M. Feng* 2100; Ta-li Hsien, on open slope, 3 ft. high, fls. white, alt. 3500 m., July 30, 1933, *H. T. Tsai* 53943; without detailed data, *T. T. Yü* 6915.

This species is dedicated to the botanist A. Finet, who published, in collaboration with A. Gagnepain, a very good treatise on the eastern Asiatic species of *Thalictrum*. The nearest relative of *T. Finetii* is *T. platycarpum* Hook. f. & Thoms., of which a syntype is at hand. However, the new species is much larger throughout, with longer anthers and with a narrower

fruit, which has less prominent ribs, a shorter stipe, and a well defined style.

Thalictrum Smithii sp. nov. PL. I, FIGS. 20-22.

Planta 40-150 cm. alta, plus minusve pubescens vel fere glabra, radicibus fibrosis in locis tuberosis, tuberibus ovoideis. Folia caulinarum ca. 5-ternata. Stipellae desunt. Foliola membranacea ovata crenata, (0.5-)1(-1.5) cm. longa. Inflorescentia ampla paniculata ramosa ramis flexuosis et fere nudis. Pedicelli brevissimi (3-)5(-15) mm. longi recti. Sepala elliptica dorso puberula ca. 2.5 mm. longa. Filamenta filiformia ca. 4 mm. longa. Antherae oblongo-lineares, ca. 2.5 mm. longae, apice obtusae. Ovaria 4-5. Stigma ventrale subsessile haud alatum, 0.7-1 mm. longum. Carpella matura haud compressa costata sessilia, ventre obovoideo 1.2-1.6 mm. longo et 0.8-1.2 mm. lato, nervis gibbosulis. Floret septembri.

SIKANG: Muli, Wachin, Shawan, common on margin of thickets, 1-2 ft. high, achenes black, alt. 3000 m., Oct. 11, 1937, *T. T. Yü* 14487 (TYPE). YUNNAN: Che-tse-lo, in forest, fls. yellow, alt. 3200 m., Sept. 7, 1934, *H. T. Tsai* 58383; Shang-pa Hsien, on open slope, 5 ft. high, fls. yellowish, alt. 1500 m., Sept. 27, 1933, *H. T. Tsai* 54683; without detailed data, *H. T. Tsai* 57289.

This new species is dedicated to Sir William Wright Smith.

Thalictrum samariferum sp. nov. PL. I, FIGS. 31, 32.

Planta omnino glabra 10-45 cm. alta. Radices fibrosae, interdum in locis paullulum tuberosis. Stolones desunt. Folia ab internodiis superantur, 5-6-ternata et sessilia in apice dilatationis petiolaris. Foliola coriacea, margine revoluta, minora, ca. 3 mm. longa, basi cuneata, apice trifida vel saepius (1-)3(-5)-lobata. Stipulae adnatae integrae lanceolatae. Stipellae desunt. Inflorescentia interdum simplex, saepius plus minusve ramosa, semper foliosa. Pedunculi fere omnes ex axillis foliorum 2-5-ternatorum. Pedicelli recurvati, vel, si recti, sub receptaculo valde reflexi. Flores 5-25. Carpella matura ca. 10 in receptaculo. Stigma paullulum alatum 1-1.2 mm. longum et sessile. Stipes carpelli maturi 3-7 mm. longus haud alatus nisi prope ventre. Venter carpelli maturi 5-7 mm. longus et 4-5 mm. latus, obcordatus et laminaris bialatus, alis regularibus, alia ventrali convexa, altera dorsali convexiore, et ambae 0.5-2 mm. latae et membranaceae. Nervi carpelli maturi quatuor, quorum unus ventralis, unus dorsalis et duo laterales, omnes vero paullulum rugosi. Flores mihi ignotae sunt.

YUNNAN: A-tun-tze, mountain slope, fruit greenish white, alt. 2700 m., Sept. 1935, *C. W. Wang* 70156 (TYPE); A-tun-tze, border of woods, fruit green, alt. 3000 m., July-Aug. 1935, *C. W. Wang* 64885, 64772; without detailed data, *T. T. Yü* 12993. South-eastern TIBET: Sacred mountain Kar-war-kar-boo, Tsa-wa-rung, on bare rocks at foot of mountain, fruit light brown, alt. 3500 m., Sept. 1935, *C. W. Wang* 66468; Djer-mai, Tsa-wa-rung, alt. 3200 m., Aug. 1935, *C. W. Wang* 65720; Gerda, Ree-su-la, Tsa-wa-rung, on grassy slope, fruit purple, alt. 3600 m., Aug. 1935, *C. W. Wang* 65913.

In habit this species closely resembles *T. elegans* Wall., but it has a much larger fruit, a usually simpler and more leafy inflorescence with longer pedicels, and is always glabrous. Another specimen from Yunnan, *T. T. Yü* 6236, collected early in bloom, may also belong here.

Thalictrum trichopus Franch. in Bull. Soc. Bot. France 33: 370. 1886.

Thalictrum Tenii H. Lév. in Rep. Nov. Sp. 7: 98. 1909.

A fragment of an isotype of *T. Tenii* is preserved in the Gray Herbarium.

Thalictrum virgatum Hook. f. & Thoms. Fl. Ind. 1: 14. 1855. PL. I, FIGS. 25-27.

Thalictrum virgatum var. *stipitatum* Franch. in Bull. Soc. Bot. France 33: 369. 1886.

Thalictrum verticillatum H. Lév. in Rep. Nov. Sp. 7: 97, 99. 1909.

Léveillé's reduction of his own *T. verticillatum* to *T. virgatum* is correct, judging from part of the type material of the former and an isotype of the latter preserved in the Gray Herbarium. Franchet's var. *stipitatum* is the typical form of this species. Lecoyer's drawing (in Bull. Soc. Bot. Belg. 24: pl. 4, fig. 10. 1885) does not represent *T. virgatum*.

Thalictrum Yui sp. nov. PL. I, FIGS. 23, 24.

Species *Thalictro deciternato* nostro aspectu multo consimilis. Differt pubescentia totius plantae e pilis capitatis translucidis composita, nisi in foliolis inferne pilis crassiusculis et opacis. Ovaria conspicue stipitata. Stigma ca. 1 mm. longum. Carpella matura compressa subcostata, stipite 1.3-2.3 mm. longo, ventre 2.2-2.8 mm. longo et 1.5-1.7 mm. lato, nervo dorsali paullulum convexo, ventrali multo convexiore quam dorsali.

SIKANG: Muli, Kulu, rocky places in thickets, casual, 2-3 ft. high, achenes pale brown, alt. 3300 m., Sept. 14, 1937, *T. T. Yü* 14273 (TYPE).

§ *Erythrandra* Boivin

Thalictrum javanicum Bl. Bijdr. Fl. Ned. Ind. 2. 1825.

Thalictrum Argyi H. Lév. in Bull. Herb. Boiss. II. 6: 504. 1906.

A fragment of an isotype of *T. Argyi* is preserved in the Gray Herbarium.

Thalictrum ramosum sp. nov. PL. I, FIGS. 12-15.

Planta diffusa e basi ramosa viridula glabra debilis, 25-40 cm. alta. Folia basilaria adsunt, triternata, 20-30 cm. longa. Stipellae desunt. Foliola membranacea, (1-)1.5(-2) cm. longa, saepius obovata et apice crenata, nervis inferne rugosulis. Flores subcorymbosi. Sepala orbicularia 2-2.2 mm. longa. Filamenta alba clavata 1.5-2.2 mm. longa. Antherae ellipsoideae, ca. 0.7 mm. longae, apice rotundae. Ovaria staminibus parum longiora, 8-12. Stigma ventrale haud alatum ca. 0.3 mm. longum. Stylus cum stigmatate ca. 0.5 mm. longus. Carpella matura brunnea sessilia fusiformia haud compressa nec costata, ventre lanceolato ca. 4.5 mm. longo et 1.2 mm. lato, nervo ventrali paullulum convexiore quam dorsali. In eadem planta nonnunquam et flores et carpella matura inveniuntur quia flores ad anthesim veniunt in successione a mense aprili.

SZECHUAN: South of Kuan Hsien, along ditch, fls. reddish, alt. 850-950 m., Apr. 14, 1930, *F. T. Wang* 20378 (TYPE); Mt. Omei, under shady rocks, fls. greenish white, alt. 900 m., Apr. 15, 1932, *T. T. Yü* 274; Chengtu, Mar. 15, 1937, *S. S. Chien* 5880.

Thalictrum Rockii sp. nov. PL. I, FIGS. 28-30.

Planta 1.5 m. alta, omnino pubescens nisi in caule inferiore e pilis uniseriatis translucidis aetate florendi, aetate maturandi glabra nisi in foliolis inferne pubescentia crassiuscula opaca praedita. Folia caulinarum 4-5-ternata estipellata, foliolis 0.8-1.5 cm. longis, trilobatis, lobis saepius crenatis. Inflorescentia copiosa ramosissima paniculata. Sepala ovata ca. 3 mm. longa. Filamenta clavata 5.5-7.5 mm. longa. Antherae oblongo-lanceolatae ca. 1 mm. longae. Ovaria ca. 4, ventre compresso breviora quam stipite, stigmatate ca. 0.5 mm. longo breviora quam stylo libero. Carpella matura pendula haud costata laminaria, stipite tenui 3-3.5 mm. longo,

ventre semi-obovato 5–5.5 mm. longo, 2.8–3.2 mm. lato, nervo ventrali multo convexiore quam dorsali. Floret junio julioque.

KANSU: Upper Tebbu (T'ieh-pu) country, below Shihmen, Tsaluku valley, in forests of spruces, willows, etc., fls. creamy white, alt. 11000 ft., July-Aug. 1925, *J. F. Rock 13054* (TYPE); T'ao River basin, valley of Tayüku, grassy slopes, fls. greenish, alt. 8500 ft., July 1925, *J. F. Rock 12835*. TSINGHAI (Ch'ing-hai): Ba valley, under willows, fls. greenish yellow, alt. 9900 ft., June 23, 1926, *J. F. Rock 14271*.

In the herbarium of the New York Botanical Garden there is a fruiting specimen of this species, collected by W. Y. Hsia (no. 2400) at Ling-shankou in Cho-lu Hsien.

Thalictrum Wangii sp. nov. PL. I, FIGS. 8–11.

Planta 30–40 cm. alta, omnino dense pubescens pilis capitatis translucidis. Folia caulinarum 3-ternata, ea inflorescentiae 1–2-ternata. Stipulae semi-ovatae ca. 1 mm. longae. Stipellae desunt. Foliola membranacea ca. 8 mm. longa, fere orbicularia, apice trilobata, lobis crenatis. Inflorescentia 4–8-flora. Pedicelli 1–2 cm. longi, sub receptaculo plus minusve recurvati, omnes ex axillis foliorum 1–2-ternatorum. Flores albi. Sepala elliptica ca. 5 mm. longa. Filamenta alba apice clavata ca. 4.5 mm. longa. Antherae oblongo-lineares, albae, ca. 1.5 mm. longae, apice rotundatae. Ovaria fusiformia 4–6. Stylus cum stigmatibus ca. 1.8 mm. longus. Stigma anguste bialatum ca. 0.6 mm. longum. Carpella matura ignota. Floret julio.

YUNNAN: Li-kiang Hsien, in woods, fls. yellowish white, alt. 2700 m., July 1935, *C. W. Wang 71546* (TYPE). Southeastern TIBET: Dzer-nar, Tsa-wa-rung, dry slope on border of woods, alt. 3000 m., Sept. 1935, *C. W. Wang 66523*.

The closest relative of this species seems to be *T. Fargesii* Franch.

§ *Physocarpum* DC.

Thalictrum coreanum H. Lév. in Bull. Acad. Int. Géogr. Bot. 11: 297. 1902.

In my recently published monographic study of *Thalictrum*, I expressed doubt (in *Rhodora* 46: 368. 1944) as to whether *T. coreanum* and *T. ichangense* Lecoyer (ex Oliv. in Hook. Ic. Pl. 18: t. 1765. 1888) were distinct species. At the time this original paper was prepared, we had very good and abundant material of the latter but only one poor specimen of the former. At present, the situation is reversed, and I have available very good fragments of *T. coreanum* but only one poor specimen of *T. ichangense*. From the material at hand, and from my recollection of that which I have previously examined, these two species are undoubtedly distinct. *Thalictrum coreanum* has a compact subcorymbose inflorescence and a fruit which is sessile or nearly so, with a body about three times longer than broad. Its leaflets are orbicular, 9 in number to each basal leaf, and very leathery at maturity. *Thalictrum ichangense* has a somewhat diffuse inflorescence with the flowers more or less racemose on the branches. Its fruit is conspicuously stipitate, with a body about five times longer than broad. The leaflets of its basal leaves are more or less triangular, with a rounded base, and usually are 3 or 5, or very rarely 9, per leaf. At maturity the leaflets are firm, strongly bicolored, and always dull beneath. *Thalictrum coreanum* has a much stouter appearance throughout.

Thalictrum tuberiferum Maxim. in Bull. Acad. Sci. St. Pétersb. 22: 227. 1876.

Thalictrum Fauriei H. Lév. in Rep. Nov. Sp. 7: 100. 1909; nec. H. Lév. & Vaniot in Bull. Soc. Bot. France 53: 388. 1906; nec Hayata in Jour. Coll. Sci. Tokyo 22: 7. 1906.

Thalictrum punctatum H. Lév. in Rep. Sp. Nov. 10: 376. 1912.

Fragments of the type of *T. Fauriei* H. Lév. and of the syntype of *T. punctatum* are available; both apparently belong to *T. tuberiferum* Maxim.

§ *Tripetrium* DC.

Thalictrum aquilegifolium L. Sp. Pl. 547. 1753.

Thalictrum Taqueti H. Lév. in Rep. Nov. Sp. 7: 339 (nec 100). 1909.

Thalictrum Dunnianum H. Lév. in Rep. Sp. Nov. 8: 549. 1910.

Fragments of type material of Léveillé's species are available in the Gray Herbarium. *Thalictrum Dunnianum* is merely a renaming of the *T. Taqueti* based on *Taquet 508*, this specific epithet having been used twice by Léveillé.

Subgenus *Lecoyerium* Boivin

§ *Cincinneria* Boivin

Thalictrum Mairei H. Lév. in Rep. Nov. Sp. 7: 339. 1909. PL. I, FIGS. 16-19.

Planta robusta omnino glabra 50-150 cm. alta. Folia basilaria petiolata, petiolo basi valde dilatato. Folia caulinarum 4-5-ternata petiolo brevi. Stipulae membranaceae semi-orbiculares. Stipellae membranaceae semi-orbiculares 1-3 cm. latae, ad ramificationes petioli fere omnes adsunt. Foliola ca. 1 cm. longa, membranacea. Inflorescentia paniculata valde ramosa et foliosa. Pedicelli robusti 1-3 cm. longi, sub receptaculo paullo incurvati, fere omnes ex axillis foliorum 2-3-ternatorum. Sepala fere orbicularia 4. Ovaria ca. 10. Stigma conspicue bialatum lanceolatum sepala excedens, ca. 3 mm. longum et 0.5-1 mm. latum. Carpella matura costata fere haud compressa, valde reflexa, stipite crasso ca. 1 mm. longo, ventre lanceolato 6-7.5 mm. longo et 1.8-2 mm. lato. Stigma persistens circinatum. Floret maio et julio.

SZECHUAN: Inter Oti et Ouentin, in dumetis, fl. roseo-lilacini, alt. ca. 2500 m., junio 3, 1914, *C. Schneider 1170*; inter Kuali et Molién, planta ad 1 m., alt. ca. 3200 m., majo 25, 1914, *C. Schneider 1382*. SIKANG: Muli, Kulu, Tungyehitze, under thickets, casual, 3-5 ft. high, achenes pale brown, alt. 3100 m., Sept. 22, 1937, *T. T. Yü 14335*. YUNNAN: N. W. Likiang, Ah-nar-koo, near Shikoo, in open pasture, fls. canary, June 1, 1939, *R. C. Ching 20652*; Likiang Snow Range, on open hillside, fls. yellow, June 14, 1939, *R. C. Ching 30228*; eastern slopes of Likiang Snow Range, Pai-shui Ho, fls. dull dark purple, May 17, 1922, *J. F. Rock 3572*; without detailed data, *T. T. Yü 5706, 11686*.

This species evidently belongs to the Section *Cincinneria*, along with *T. macrostigma* Finet & Gagnep. The closest relative of these two species is *T. macrocarpum* Gren., from the French Pyrénées. At first I took the species described above to be new, but, through a fragment received from Edinburgh, I was able to ascertain its identity with *T. Mairei*. However, the above description, based on the cited specimens, does not seem superfluous.

EXPLANATION OF THE PLATE

All drawings are $\times 6$ except Fig. 4, which is $\times 2$, and Fig. 19, which is $\times 1$.

FIGS. 1-3. *Thalictrum Finetii* Boivin: stamen and ovary, *Yin 117*; fruit, *Ching 22072*. FIGS. 4-7. *Thalictrum deciternatum* Boivin: contour of a terminal leaflet, ovary, immature fruit, and stamen, *Schneider 1805*. FIGS. 8-11. *Thalictrum Wangii* Boivin: sepal, stamen, ovary, and young fruit, *Wang 71546*. FIGS. 12-15. *Thalictrum ramosum* Boivin: stamen, sepal, and ovary, *Wang 20378*; fruit, *Yü 274*. FIGS. 16-19. *Thalictrum Mairei* H. Lév.: ovary and stamen, *Ching 20652*; single fruit and head of fruits, *Yü 14335*. FIGS. 20-22. *Thalictrum Smithii* Boivin: ovary and stamen, *Tsai 54683*; fruit, *Yü 14487*. FIGS. 23, 24. *Thalictrum Yui* Boivin: ovary and fruit, *Yü 14273*. FIGS. 25-27. *Thalictrum virgatum* Hook. f. & Thoms.: stamen and ovary, *J. D. Hooker*, Sikkim; fruit, *Yü 14544*. FIGS. 28-30. *Thalictrum Rockii* Boivin: fruit, *Hsia 2400*; stamen and ovary, *Rock 13054*. FIGS. 31, 32. *Thalictrum samariferum* Boivin: ovary and fruit, *Wang 70156*.

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